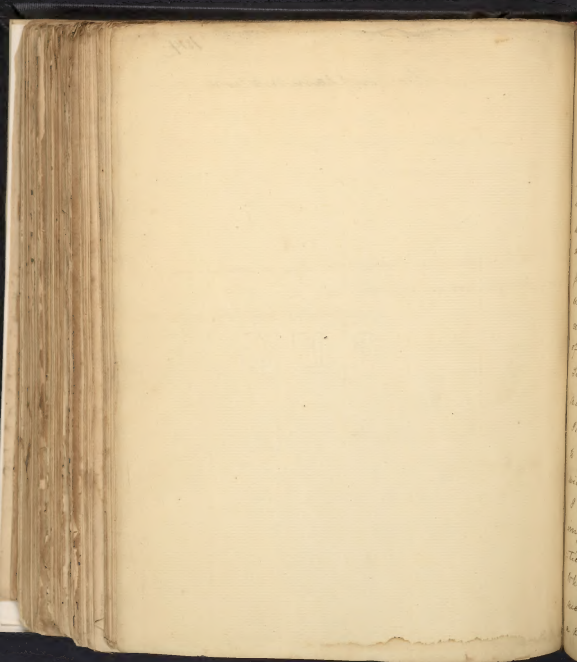


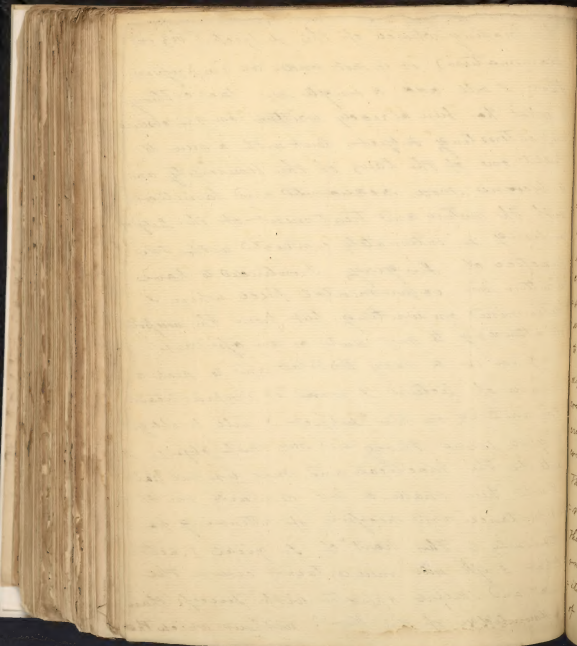
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# 16

On inflammation —



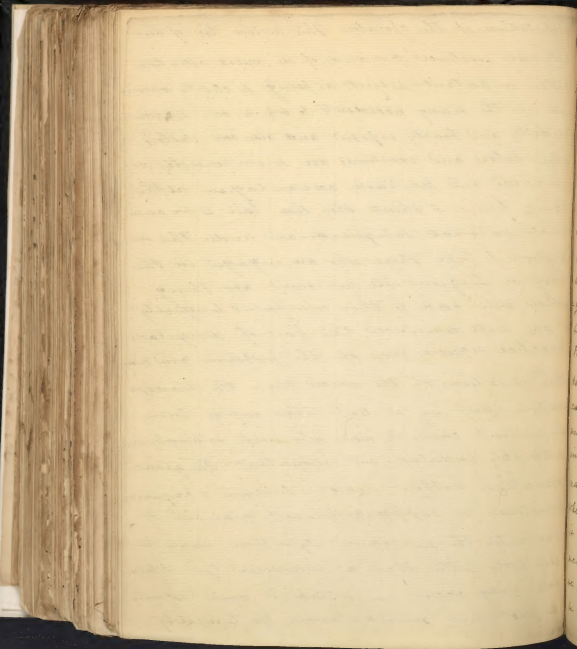
In making choice of this subject. (viz in =  
=flammation) it is not under an impression  
that I will add a single new fact or theory  
to what has been already written on this obscure  
but interesting subject. But with a view to  
fulfil one of the laws of this University and  
to become more acquainted and familiar  
with the nature and treatment of this subject  
as being so intimately connected with the  
practice of Surgery I intended to have  
written an experimental piece where I  
determined on writing, but from the necessity  
of attending to my duty as an assistant  
Surgeon in a Navy Hospital and to such a  
number of lectures I found it impracticable  
In writing on this subject I will be obliged  
to give some theory but my chief object  
will be the practical and more useful parts  
I will here make a few remarks on the  
importance and necessity of attending par=  
=ticularly to this part of Surgical practice  
that I oft will more certainly crown the  
merit and skilful operator with success than  
a knowledge of this kind? without which that



confidence and firmness requisite for such operations, will to his mortification sooner or later forsake him. Who in a majority of important cases in Surgery, can hope or reasonably expect to conduct his patients to a happy and successful issue, unless he be acquainted with inflammation, and if he be unsuccessful from this cause, all his boasted and probably will founded claim to adroitness in operating will terminate in disappointment and chagrin. but if he be in possession of this requisite information, if he be not able to prevent, which is always best, he will generally be able to extricate himself from the subsequent difficulties which may occur and by that means conduct the sufferer safely thro' with honor & credit to himself. And as Surgery is so closely connected with the subject under discussion I think this ought to be a sufficient inducement for those who expect to be engaged in this kind of practice to be prepared to combat one of its most usual & frequently <sup>formidable</sup> congenitant, which so often enlarges the life of the patient & jeopardizes the skill and

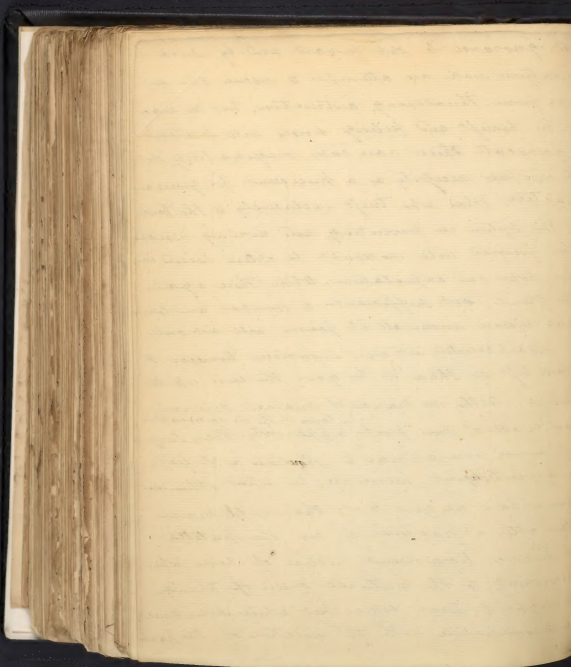


reputation of the operator. This period too of our  
national existence demands of us much attention  
to this important subject, as being so closely concern-  
ed in the many accidents to which our soldiers  
are daily and hourly exposed and also our sailors  
whose labors and exertions are so imperiously de-  
manded and peculiarly advantageous at this  
trying time. I think they well fair to be our  
chief national safeguards and under this im-  
pression I hope those who are engaged in the  
navy or surgery will not omit any thing  
which will add to their comfort & longevity  
I am well convinced this part of surgical  
practice requires more of the profound and mas-  
terly operations of the mind than the mere op-  
eration itself in at least three out of four  
important cases. A man who would willingly and  
deliberately undertake an important surgical  
operation without reasons superior to prejudice  
or interest, for supposing himself qualified to  
encounter the subsequent symptoms, would be  
very little better than a murderer. Yet I believe  
cases may occur in which it would not only  
be just but even a favor for timidity





and ignorance to step forward and by such  
operations make an attempt to rescue the suf-  
ferer from threatening destruction, but no man  
in his honest and feeling senses will pretend  
to advocate these rare cases originating out-  
of direful necessity as a precedent for general  
practice. Those who trust exclusively to the power  
of the system in preventing and curing disease  
when formed will no doubt be often foiled in  
their hopes and expectations. While those again  
who think art sufficient to combat and con-  
quer disease under all its forms will not only  
be disappointed but even injurious. However I  
think less so than if he gave the cure up to  
nature. Altho' no branch of medical science  
can boast of more proofs <sup>in favor of the vis medicatrix</sup> apparently than surgery  
and would even appear to sanction a belief  
in an intelligent principle, for what other  
name can we give to it. Than intelligence  
when after a fracture as in the patella  
it produces ligament instead of bone when  
according to the natural order of things  
we ought to have bone. but where bone would  
be incompatible with the function of the part



But if this were admitted I think it would prove  
too much I consider all those boasted proofs in  
favor of the ~~vis~~ Medication a much The effect  
of Stimuli acting on excitability, a ~~marking~~ ~~and~~  
contraction the effect of muscular power on vision  
the effect of light acting on the healthy eye  
and in no part of the healing art - is medicinal  
and more requisite in preventing disease and  
regulating and curing it when present than in  
the practice of Surgery and particularly that  
part of it denominated inflammation. In my  
mind both extreme as it respects the efficacy  
and inevitability of Nature in curing diseases are  
fallacious and injurious in practice, but a strict  
attention to the Human System and the different  
changes it undergoes, from the variety of causes  
acting on it will I think constitute the best  
practical guide not only in this but in  
every form of diseased action and that these  
things must be kept in view to prescribe either  
scientifically or successfully -

I have no hesitation in thinking and asserting too  
that the Theory and practice of inflammation  
taught in this University is the most



rational simple and intelligible. That any now  
or have been taught in any Medical School  
whatever, but to say we will never have more  
correct ideas of its nature and treatment would  
be derogatory to that state of improvement  
which has so indelibly stamped the character  
of this University over all others of its day  
and which now marks its progress in the  
science of medicine. The present simple  
and accurate fabric of Surgery has doubtless  
been furnished with a very large portion of  
its materials from the scrutinizing & original  
mind of the present professor of Surgery, by  
him Surgery has been rationally stripped  
of much superfluity and humanely robbed  
of the largest share of its cruelty & tortures  
for which the present generation and future  
generations ought and I hope will feel  
that warm and liberal share of gratitude  
which becomes the human character —

I shall now proceed to define and divide  
my subject. By inflammation I mean  
that state of a part in which there is more  
redness, tumefaction, pain & heat than  
nature in a healthy state of things.



This division may be very properly divided into  
1<sup>st</sup> Cause, 2<sup>nd</sup> Symptoms and 3<sup>rd</sup> Terminations and  
4<sup>th</sup> Treatment. In speaking of inflammation I shall confine my observations entirely  
to what has been called healthy, not depending  
on either depravity or peculiarity of constitution.  
In treating of this form of disease I shall hum-  
blyly a voice entering into an investigation  
of the opinions and practice of the Ancients  
which were to say the least of them very correct  
in many instances both as to the nature and  
cure. My object will be to pursue the plan  
which I deem most correct and useful.

Of the causes of inflammation. Whatever destroys  
a due proportion between the power and action  
of a part either by its force or evacuation vice  
in a majority of cases be productive of inflam-  
mation, but varied in degree by the force or  
evacuation of the cause, which commonly pro-  
duce this effect. The causes from action divide  
themselves into those which stimulate as heat and  
the rubefacients generally and into those which  
act mechanically as wounds, bruise, &c &c

Those which produce inflammation by abstraction





are cold and constrictions, to such a degree as to  
prevent the circulation of fluids thro' parts, which  
depend on them for their vitality and nourish-  
ment I shall not undertake an explanation  
of the modes of operation of each remote and ex-  
citing <sup>cause</sup> of inflammation, because I think this neither  
very soluble or practicable, and therefore I  
leave this mysterious and herculean task and  
only add that I consider the human body as  
one chain or circle made up of many links  
and to treat this as well as every other part  
and organ of disease, with a tolerable chance  
of success, we must attend to the nature of the  
body acted on, the nature of the cause acting  
with an attention to the violence and duration  
of the power acting, and the different grades  
of action produced in this process, and then  
to be regulated by the state of the system  
in prescribing for inflammations, whether  
partial or general After these few short and  
I think correct remarks on this subject I will  
next take notice of the symptoms which are  
attendant on inflammation and what I suppose  
to be their most probable cause. Recovery is the  
first question to be considered. This will be



to depend on two causes 1<sup>st</sup> on an increase of action  
in the vessels of the part, which circulate red  
blood, and 2<sup>d</sup> on an increased size in those vessels  
which in a natural state transmit lymph  
but in this excited state permit red blood  
to pass thro' them, constituting what is called  
an error loci of red blood. I infer that an  
increase and not a diminished action of  
the part exists, from the nature and well  
known effects of the remedies which are  
used, with ~~such~~ such prompt and decisive  
advantage, in the first stages of inflam-  
mation, such as bleeding locally or generally,  
purging, &c. next favored by posture, which  
last mode I consider a species of direct depletion  
and of great importance and efficacy in  
facilitating the cure of inflammation when  
located in the extremities and often times  
the only kind of depletion <sup>ever</sup> warrantable  
in the usage. The second symptom is tum-  
efaction this appears to be produced by a  
superstition of calculable lymph and some-  
times serum together with an enlarge-  
ment of the vessels in the part diseased.



Since Spontaneity is rare, this has been  
usually explained by different writers, some  
make it to depend on a morbid state of the  
nerves or an ecclesia the symptom, while others  
consider that it depends on tumefaction or a  
symptomatic symptom that tumefaction  
may increase or aggravate such a symptom  
are not disposed to vary altogether, but  
that I do not believe this to be the <sup>cause</sup> true, and in  
the following reasons. We often see pain of a  
very acute and distressing kind without the  
least swelling & in "Gic Douleuruse" and on  
the other hand we often find much swelling  
without pain & in many of the sarcoma-  
tous and theomatous tumors and lastly, the  
pain and tumefaction in many instances  
do not bear the proper relative proportion to  
each other. I think it is a morbid state of  
the nerves or rather the result of the same  
morbid action which produces the resumptive  
tumefaction and not a symptom of a  
symptom which regenerates rather as a con-  
stituent than a well founded cause —  
I consider in the abstract of disease



and measure and health depends on one proportion of power and action and consequently whatever destroys this one proportion will I think produce in some degree pain, which however, will depend on the violence and force of the cause producing the diseased action rather inflammation, this morbid action is what I suppose to be the true cause of pain and what I believe is analogous to what is denominated a morbid state of the nervous system made mention of by some writers. The fourth symptom generally ~~taken~~ taken notice of is heat and till Mr Hunter's time this was universally admitted but from some experiments made by this rare man, the fact so long taken for granted, is quite problematical with me, altho I was decidedly with the multitude till I carefully <sup>perused</sup> his experiments made to test the truth or falsehood of this opinion and on this point I am very attainable grounds I will not attempt an explanation of its mechanism. The procession ought already to be well <sup>known</sup> to the raising of the superstructure

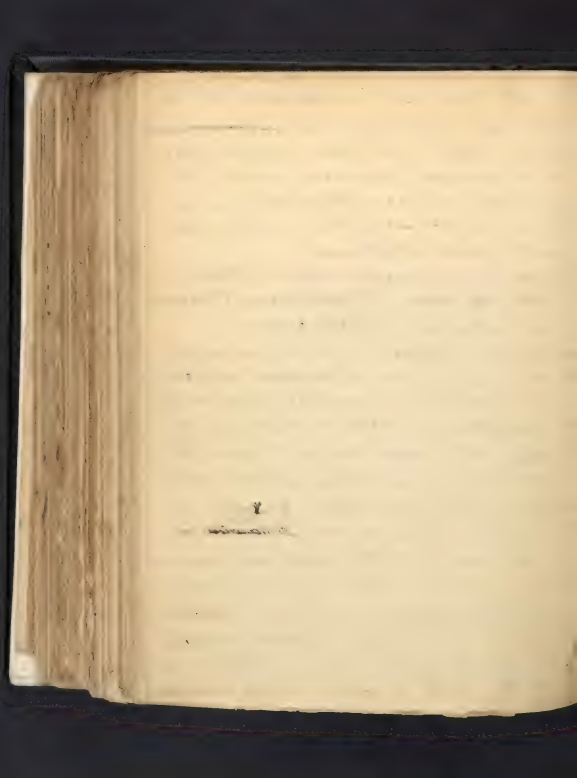




I will now take into consideration The ter=  
minations and treatment of inflammation  
inflammation under four different stages  
which are generally distinctly marked. The it  
is not always the case that these four  
grades succeed each other in the order  
I shall speak of them

I shall for convenience divide them into  
The following order. 1<sup>st</sup> Adhesion 2<sup>d</sup> Resolution  
3<sup>d</sup> Suppuration and 4<sup>th</sup> Gangrene

Adhesion. This appears to be the most sim=  
ple and useful form of disease and one  
of the principle and most powerful auxil=  
iary furnished by nature to the art of  
Surgery. This process has for its object the  
reproduction of parts when destroyed as in  
contused wounds and large abcesses or  
the reunion of parts when <sup>disjoined</sup> ~~separated~~ as in  
lacerated wounds of the scalp and simple  
incised wounds of different parts and  
These two apparently different functions  
are effected by the same agent viz <sup>con-</sup> ~~coag~~  
ulable lymph, which after it is thrown out  
on the form of bone tendon or muscle



as the necessity of the case requires. Nature  
however frequently does too little or too much  
and here the hand of art is requisite to  
regulate her. It is very evident - That this  
coagulable lymph must undergo some change  
to fit it for this important purpose. but  
what this is I believe none are able to tell  
but this very obscure and intricate cause, has  
been explained by supposing that it undergoes  
a peculiar change. This I conceive to be no  
explanation at all. but merely the assertion  
of a fact, and fortunately for us the true  
nature of this or will a many changes  
which take place, is not essential to the  
treatment of this and many other forms  
of disease. with success, by attending to the  
state of the system or part and, fearing if  
practicable. whether there be too much or too  
little action and to prescribe our remedies  
accordingly, I believe we will generally, practice  
correctly. The remedies for too much action are  
local and general as the necessity of the case  
may demand. local remedies are however of  
themselves sufficient for the management  
most cases of this grade, they should be copious.



luckes. rest and posture when practicable  
continued with purgative mixture frequently  
applied to the part, if these will not answer  
a blister is next to be laid over the part,  
and this will generally answer, but should this  
with the others prove ineffectual. we must  
then attempt to relieve the part at the expense  
of the whole system, by bleeding purging  
and low diet, using at the same time the  
local remedies particularly the blister which  
I consider an *esse agmen* in local  
inflammation. I will just observe that purging  
ought not to be neglected while using the local  
means. should the symptoms be either mild or violent  
unless the motion given by such medicines in their  
operation would by irritating the part affected  
be more injurious than such medicines would  
be useful. On the other hand when the action  
is too weak for the reproduction ~~and~~ reunion  
of parts our plan of treatment must be  
vice versa, with the exception of the blister  
which appears to possess a two-fold virtue  
Resolution I think will be very properly spoken  
of after coadhesion as being the principal



and necessary agent in removing the superfluous matter which is frequently left after the process of adhesion is over. The mere stimulus of this matter is often sufficient to excite the absorbents to this salutary office, without the interference of art, the process of resolution is performed for the most part by the power and agency of the absorbents. This like adhesion may suffer the same irregularities. Sometimes this stage transcends the bounds of resolution and threatens disorganization or suppuration. Here we must have recourse not only to the local but general remedies, a blistering, bleeding, purging, rest and posture just as in a adhesion. When in a similar state and which has been already spoken of when the absorbents are too feeble, we must excite them to action by stimulating applications and here again the blister claims a two fold virtue - Resolution is sometimes produced by a hemorrhage from the part, the modus operandi of this is evidently depends on a direct depletion or emptying the blood vessels of the part, a secretion of serum appears to answer the same





more and this I think is effected by ~~relieving~~  
relieving the parts of that tension which is  
always unfavorable to resolution. When the  
action is too great, posture in the all stages  
of high <sup>action</sup> must not be neglected. When there  
is hope of its being useful, it appears to do good  
in this stage of inflammation by lessening  
the ~~more~~ momentum and consequently  
the quantity of blood which circulate thro,  
the part in a given space of time and  
by then keeping under the circulation we  
will have the absorbents in a more active  
state when we wish to effect our object  
thro, this agency, but notwithstanding, all these  
means will sometime prove unavailing, and the  
symptoms of suppuration become more and more  
obvious and inevitable, altho the assistance of the  
neighboring <sup>parts</sup> is attempted by that important  
and wonderful law of the animal Economy  
communicated sympathy, yet they must suc-  
cumb victims to a raging tyrant —  
we may generally ascertain that suppuration  
will take place from an aggravation of all  
the symptoms of inflammation connected with



a violent member is in danger. Under these cir-  
cumstances, to persist in the use of those remedies  
which had for their object resolution would be  
both cruel and unreasonable. When we know  
that this third stage of inflammation has  
actually taken place and the following sym-  
ptoms will generally be sufficient to decide us in  
our diagnosis between this and any other disease  
an abatement of all the symptoms above  
enumerated together with a soft feel and sense  
of weight and a change of color from a red  
to a pallid appearance. In this situation two  
modes of procedure present themselves, either to  
wait till the abscess makes an opening or  
to do the same with the caustic or lance.  
In making choice of the two last mentioned  
ways, we are to be governed in some measure  
by the wishes of our patient. But if we ~~can~~  
have the liberty of deciding, we should always  
give the preference to the caustic (lance).  
In waiting for the tedious but sure operation  
of the abscess, we must be regulated by  
the importance of the affected or connected  
part, and the effects of such collection of  
matter on the constitution.



After we have determined on and made the opening, our best application while there is existing inflammation and hardness, will be a poultice of bread and milk. The temperature of which should be regulated by the feeling of our patients. When granulations have fully begun and the purulent discharge begins to diminish a little, then our best applications will be lint and simplicated together with bandage and adhesive plaster. I will notice in the last place those terminations, sloughs, gangrene and mortification or the dying and death of a part. This like every other form of disease, may be induced by too much or too little action and I understand this as being analogous to that both on with or without previous inflammation. The precursors of a gangrenous state, are a leaden color of the part with an increased pain and sensibility the two last distinguish it particularly from mortification. The state of gangrene I believe in all cases is a ~~direct~~ disease of debility whether it be local or from action or abstraction.



When the gangrene exists as a local disease  
while the system is full and vigorous our plan  
of treatment must necessarily be to stimulate  
locally and acceptly generally, and by that  
means we will prevent the violent action of the  
whole system from further debilitating the  
part already too much weakened or rather to  
use the words of the late celebrated and  
ingenious Boerhaave we must please the system  
when this is our object the remedies are too  
obvious to be repeated I will however not come  
to name the Blister as a local remedy superior  
to all others and ought never to be forgotten  
in our practice in such cases when this  
general remedy state or disposition exists more  
as a general affection we must of course have  
recourse to such remedies as will act on the  
whole system as well as local stimulants.  
Such as wine bark and most of the class of  
stimulants together with good diet  
and exercise, the is generally known by an  
excessive loss of sensation a very warm redness  
and a very black & malignant and an eleva-  
tion of the cuticle in some part. The cause  
which produces it is the often termed of





inflammation will produce mortification. only  
to be varied in force or duration; from that  
which induced the other form. Our plan of  
treatment in mortification is to attend to the  
state of the system and prescribe accordingly  
in order to arrest the farther progress  
of this increased action and to facilitate  
the sloughing of the dead portions. As this  
portion thus dead cannot be acted on by the  
application made to it, our principal  
business is to keep the part in a moist  
and comfortable state by the use of mild  
poultices and prevent its becoming hard &  
irritating to the part of sensibility con-  
nected with the dead portions, should it be  
near action to the patient or the attendant.  
This may be relieved in a great measure  
by the charcoal poultice and also the  
bark poultice. I will now conclude this  
short and very imperfect essay by ma-  
king a few remarks on the word anti-  
septic as generally used by medical  
writers. This affords a very striking proof  
how very prone we are to pervert the  
word of our ancestry. either from the want

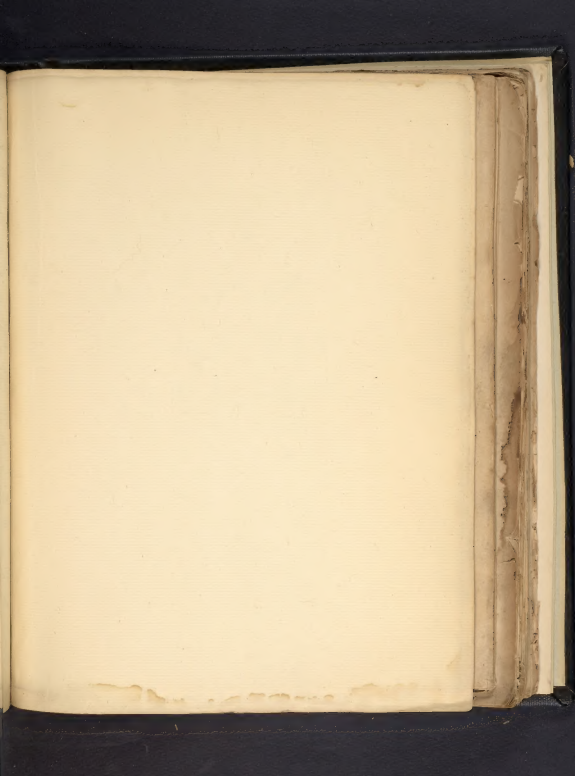


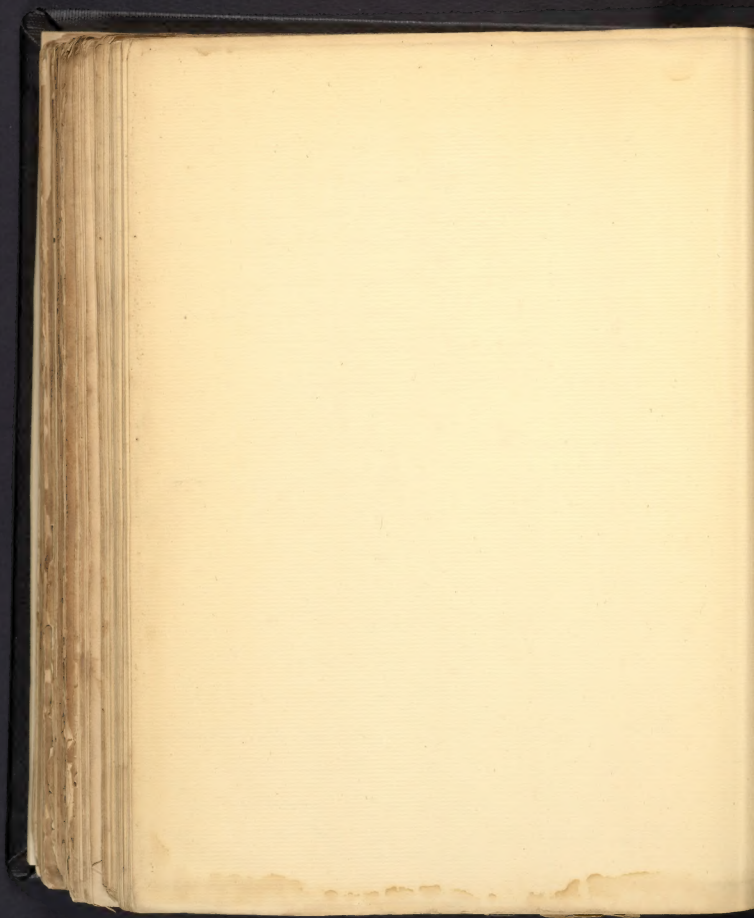
ignorance or inattention and not from  
ignorance. I am not willing to confess that  
we now use the word Antiseptic from ig-  
norance because no one will now admit of  
the present state of the living system  
whence the term originated and as they  
knew no better it was proper for them to  
use it for the expression of such a belief  
and if we will not now admit of such a  
cause and from very good reasons I think  
the term itself ought also to be improper  
at least as far as it respects the living  
human body. What is meant by Anti-  
septic? Such medicines as prevent putre-  
faction. As this cannot take place in the  
living human body it then must be  
such medicines as prevent death, for  
this is absolutely necessary before such  
specific medicines can be prescribed with  
any degree of propriety for the particu-  
lar state of the living body. This now  
however no one will advocate. Well  
how do these antiseptics prevent death?  
by giving tone to the system when it  
is too weak and abstracting when it



system is too highly excited and now I  
ask what medicines when prescribed with  
a due regard to the state of the system  
will not produce these effects? I know  
of none but will directly or indirectly  
produce one or the other of these effects.  
I am very certain that the lancet &  
heat will have powerful claims  
to the prevention of death. & the two  
great heroes of the antiseptic class  
and few I believe would venture to call  
these antiseptic remedies. As the im-  
provement of every science especially on  
the use of terms appropriate and un-  
obscure in their meaning I think  
it is high time for us to reject from  
our science those which are not so. but  
on the contrary tend to obscure and  
entangle the truth. I grant the  
term may be used with some pretensions  
to a meaning of this kind when  
applied to dead animal matter but  
not otherwise. March 10 1877









*[Faint, illegible handwriting, possibly a signature or title]*

